

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: John Date: 13/03/01QA Closed: ✓ Date: 13/3/2016

Work Order: <u>90535</u>	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. <u>D 4102-1</u>	Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input checked="" type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>		
NCR No. <u>13-2408</u>							

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	<u>13/03/17</u>	<u>110</u>	<u>x1</u>	<u>Tool list in folio called for a # 11 drill for T3 hole is sup drilled out @ .192". It's supposed to be #30 .129". Hole is .058" out of tolerance</u>	<u>DAS 16 9-83</u> <u>Q57042</u> <u>13/03/18</u>	<u>Scrap & replace M 124443</u> <u>Fix folio to update tool list (11)</u>	<u>13/02/08 13-03-17</u>	<u>JL 13-3-18</u>	<u>DAS 16 9-83</u> <u>057042</u> <u>13/03/18</u>
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear		General			
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Pressure/Forced
<input type="checkbox"/>	Centre Not Concentric to O/S	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Temperature/Cure
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Weld
<input type="checkbox"/>	Crushed/Crimped	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Wrong Stock Pulled
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Misread	<input type="checkbox"/>	
<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Offset	<input type="checkbox"/>	
<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>	
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>	
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	
<input type="checkbox"/>	Folio			<input type="checkbox"/>	Other

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: <u>98535</u>		DISPOSITION			AGAINST DEPARTMENT/PROCESS				
Part No. <u>D 4102-1</u>		Rework	Scrap	Use-as-is	Skid-tube	Crosstube	Water Jet	Engineering	
NCR No. _____		Work Order Update			Machining	Small Fab	Prod. Eng. Coor.	Quality	
					Thermoforming	Finishing	Rec/Store/Packaging	Other	
					Large Fab	Composite	Supplier		
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	13-03-18	110	x8	for Dim 0.130" (Detail B) parts measuring under tolerance ranging between 0.109" - 0.112 R.L. Set up new during machining.	DAS 22 8-8 13.03.15	ACCEPTABLE DEVIATION. THE AREA WHERE THE STRESS IS APPLIED IS TO TOLERANCE.	ET 13-03-18	(DAS 16 8-8)	(DAS 16 8-8)
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									
FAULT CATEGORY									
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube					General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				
					<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other				

Work Order ID 98535***98535***

Page 2

March-13-13 9:23:14 AM

Item ID: D4102-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: SHIM

Start Date: 3/13/13 Start Qty: 10.00 ***10***

Cust Item ID:

Required Date: 3/15/13 Req'd Qty: 10.00 ***10***

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC2- Inspect parts off machine FAI/FAIB

120 0.00

QC Memo 0.00

Quality Control

DAS
25/03/13 - 03-17

130 QC8- Inspect parts - second check 0.00

130 0.00

QC Memo 0.00

Quality Control

DAS
25/03/13 - 03-18

140 Chemical Conversion Coat per QSI005 4.1 0.00

140 0.00

HandFinish Memo 0.00

Hand Finishing

10 26/03/13-3-19

Work Order ID 98535

98535

Page 3

March-13-13 9:23:14 AM

Item ID: D4102-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: SHIM

Start Date: 3/13/13 Start Qty: 10.00

10

Cust Item ID:

Required Date: 3/15/13 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

150

QC

Quality Control

QC3- Inspect Part Finish

0.00

0.00

13 3 19

10

160

160

Packaging

Packaging

Identify as per dwg & Stock Location: 8037

0.00

0.00

43/3/20 (10)

170

170

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

ML5 13-03-20

ML5 13-03-20

Picklist Print

March-13-13 9:23:14 AM

Page 1

Work Order ID: 98535

Parent Item: D4102-1

Parent Item Name: SHIM

Start Date: 3/13/13

Required Date: 3/15/13

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 10-07-05 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.250X04.000 6061-T6 Bar .250 x 4.00		Purchased	No			100	f	12.0000	0.042	0.4421053			

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT 124443	12 12	4.166 JFC/ 20303-15

DART AEROSPACE LTD	Work Order:	98535
Description: 54mm	Part Number:	D4102-1
Inspection Dwg: 04102 Rev: B		Page 1 of 42

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø.098	+0.004/-0.001	.099	—		mm	BT - 4
Ø.129	+0.005/-0.001	.129	—			
4.75	+/- .030	4.75	—			
4.234	+/- .010	4.234	—		height gauge	31006
3.940	+/- .010	3.936	—			
3.770	+/- .010	3.769	—			
3.418	+/- .010	3.421	—			
2.315	+/- .010	2.319	—			
2.290	+/- .010	2.290	—			
1.534	+/- .010	1.533	—			
1.125	+/- .010	1.126	—			
.718	+/- .010	.720	—			
.600	+/- .010	.604	—			
4.00	+/- .030	3.996	—			
3.644	+/- .010	3.646	—			
3.510	+/- .010	3.513	—			
3.035	+/- .010	3.036	—			
2.90	+/- .030	2.867	—			
2.656	+/- .010	2.657	—			
1.413	+/- .010	1.417	—			
1.10	+/- .030	1.133	—			
.675	+/- .010	.677	—			
.630	+/- .010	.634	—			

DAS

Measured by:	02BT	Audited by:	DAS	Preliminary Approval:	
Date:	13-03-17	Date:	25-03-18	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

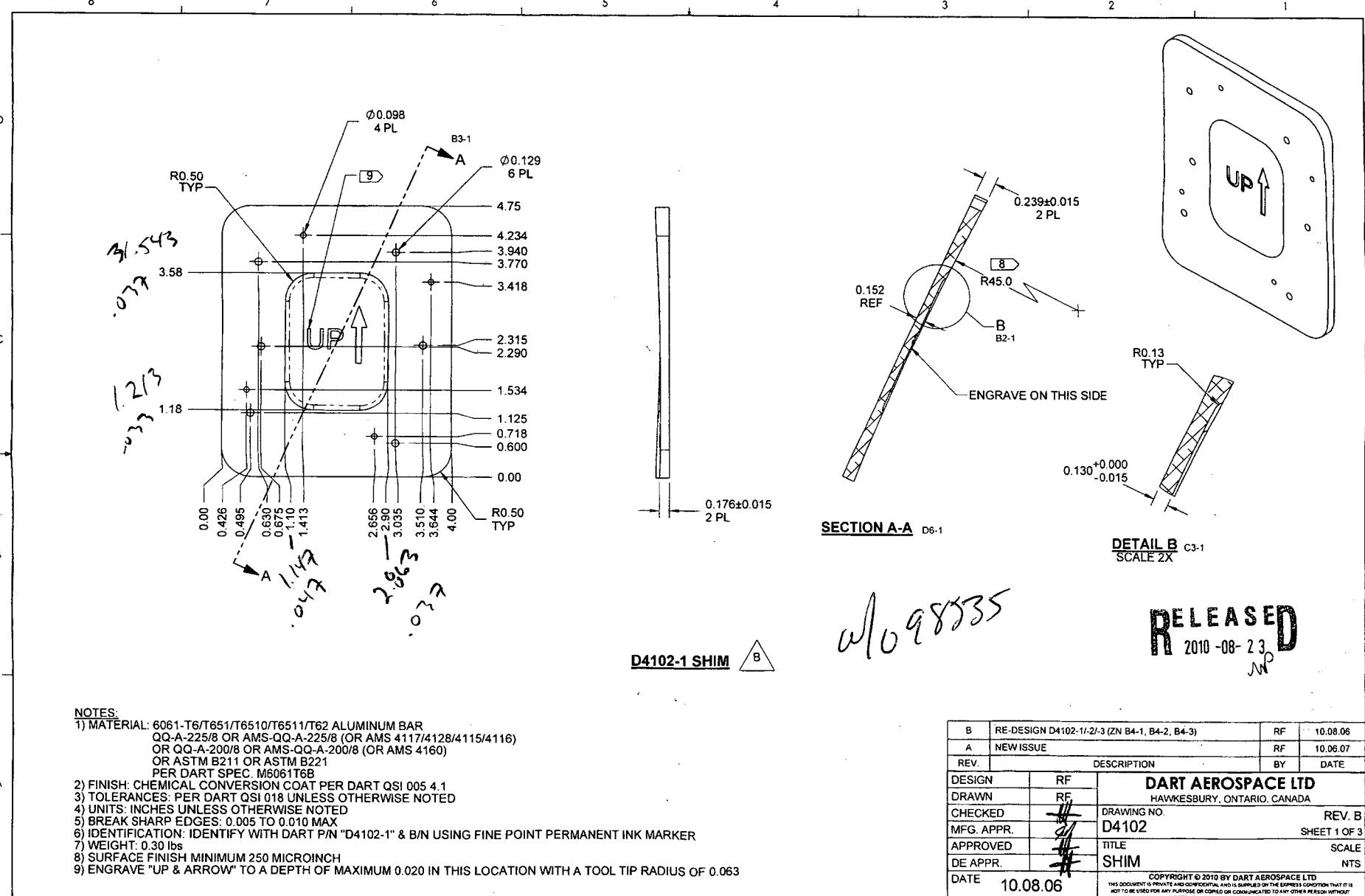
DART AEROSPACE LTD	Work Order:	98535
Description: Shim	Part Number:	04102-1 2052
Inspection Dwg: 04102 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

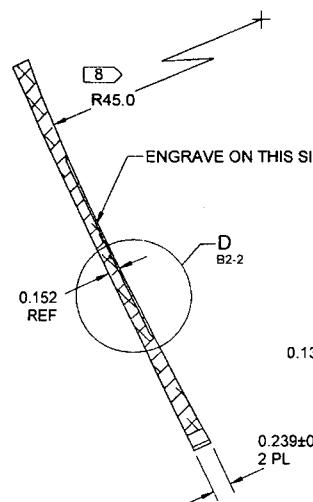
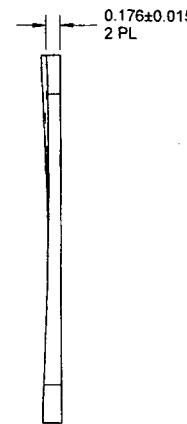
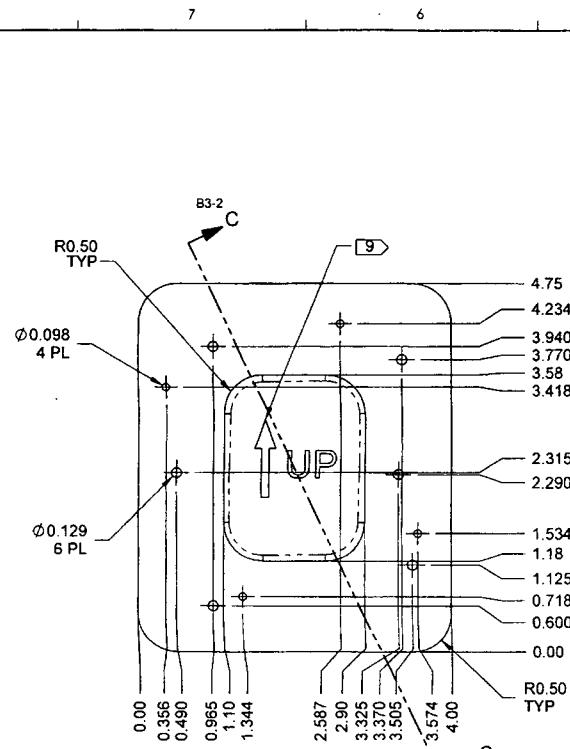
Measured by:	DAS 02 JT	Audited by:	DAS	Preliminary Approval:	
Date:	5-89 13-03-17	Date:	5-89 13-3-18		Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

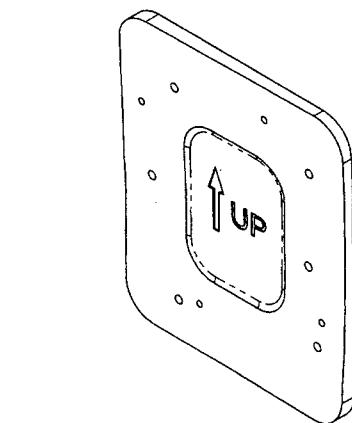
10.04.15



B	RE-DESIGN D4102-1/2-3 (ZN B4-1, B4-2, B4-3)	RF	10.08.06
A	NEW ISSUE	RF	10.06.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	##	DRAWING NO.	REV. B
MFG. APPR.	##	D4102	SHEET 1 OF 3
APPROVED	##	TITLE	SCALE
DE APPR.	##	SHIM	NTS
DATE	10.08.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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SECTION C-C D7-2



DETAIL D C3-2
SCALE 2X

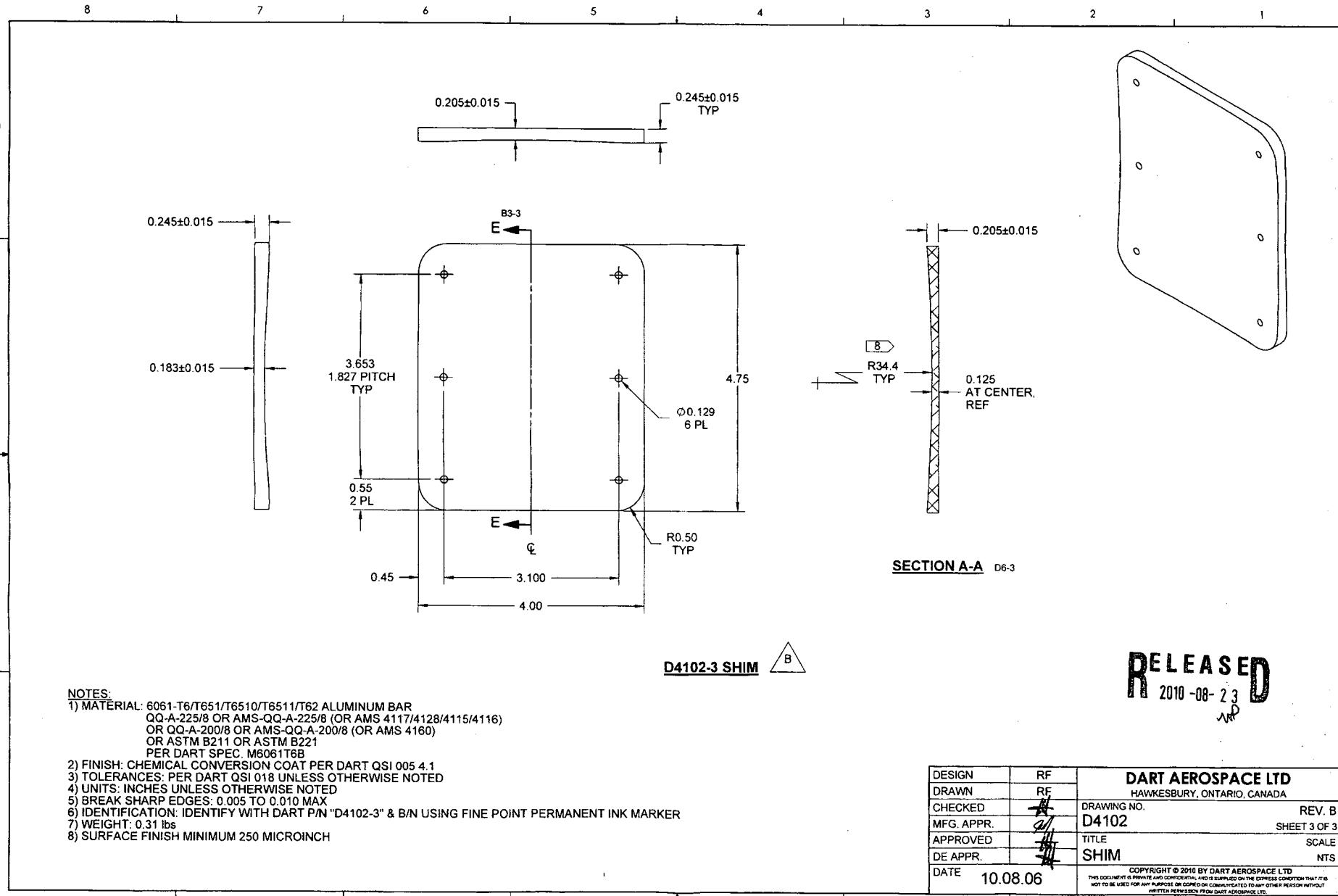
NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART PART "D4102-2" & B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.30 lbs
- 8) SURFACE FINISH MINIMUM 250 MICROINCH
- 9) ENGRAVE "UP & ARROW" TO A DEPTH OF MAXIMUM 0.020 IN THIS LOCATION WITH A TOOL TIP RADIUS OF 0.063

D4102-2 SHIM B

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	REV. B
MFG. APPR.	<i>[Signature]</i>	D4102
APPROVED	<i>[Signature]</i>	SHEET 2 OF 3
DE APPR.	<i>[Signature]</i>	TITLE
DATE	10.08.06	SCALE
		NTS
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2010-08-23
[Signature]



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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>11</i>	DRAWING NO.
MFG. APPR.	<i>11</i>	REV. B D4102
APPROVED	<i>11</i>	SHEET 3 OF 3
DE APPR.	<i>11</i>	TITLE SHIM
DATE	10.08.06	SCALE NTS

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